

Product Information

68172 Kit for the chromatographic determination of hydrocarbon content in water according to EN ISO 9377-2

This kit contains not only the dual layer Florisil®/Na₂SO₄ SPE tube, but also all the reagents and standards employed in "Water Quality- Determination of Hydrocarbon Oil Index" (ISO 9377-2/2001-07)

Component List:

Cat. No.	Description	Amount
94234	Alkane standard mixture C ₁₀ -C ₄₀	2.5 mL (Certan® vial)
52582-U	Dual Layer Florisil®/Na ₂ SO ₄ SPE Tube, 2g/2g/6mL	pk 48
18602	Mineral oil standard mixture Type A and B for EN ISO 9377-2	5x2ml (ampules)
51706	QC-Standard Solution for EN ISO 9377-2/H53, 10mg/ml	1 mL (Certan® vial)
49574	Extraction Medium Standard Solution acc. to DIN EN ISO 9377-2	3 x 100 mL

The kit allows users to extract and analyze 15 water samples (2 series of 10 water samples) in duplicate. Recovery and blank analysis should be run in duplicate after each series.

Prior to use the following solutions should be diluted as following:

49574 – 1:10 with n-heptane

51706 – 1:10 with acetone (exact concentration should be a thousand times the desired application range)

The water sample is extracted with an extracting agent. Polar substances are removed by clean up on Florisil®. The purified aliquot is analyzed by capillary chromatography using a non-polar column and a flame ionization detector. The total peak area between n-decane and n-tetracontane is measured. The concentration of mineral oil is quantified against an external standard consisting of two specified mineral oils, and the hydrocarbon oil index is calculated.

Product Description 18602:

The mineral oil standard mixture type A and B for EN ISO 9377-2 is produced gravimetrically from the certified reference material BAM-K010 – supplied by the Federal Institute for Materials Research and Testing BAM – and diluted with n-heptane (~10 mg/mL).

The exact content including the expanded uncertainty and the expiry date can be found on the label.

The certified standard solution is filled 5x2ml brown glass ampules which ensure a perfect seal and guarantee an unchanging concentration of analytes.

Product Description 52582-U

Inside the kit, you can find the dual layer glass Florisil®/Na₂SO₄ SPE Tube 52582-U. These tubes have Na₂SO₄ in the upper layer and Florisil® (magnesium silicate) in the lower layer, separated and packed with PTFE frits. The upper Na₂SO₄ layer aids in removing aqueous sample residues that may hinder Florisil® performance and/or subsequent GC analysis. The efficiency of clean-up by ratio of stearyl stearate peak area determination < 1 (treated/untreated) and the recovery rate of mineral oils is > 80%.



Dual Layer Florisil[®]/Na₂SO₄ SPE Tube 2g/2g/6mL, pk 48

Retention Mechanism:	Normal-phase adsorbent suitable for the removal/isolation of polar substances from organic matrices
Scope:	This product is suitable for determination of the hydrocarbon oil index in water (surface, waste, and sewage treatment plants) by GC-FID analysis according to European Standard EN ISO 9377-2
SPE Tube:	Glass, 6mL
Adsorbent:	Upper layer- Na ₂ SO ₄ , 2g Bottom layer- Florisil [®] , 2g
Frit:	PTFE, 20µm (adsorbent layers separated by PTFE frit)

Adsorbents:

Florisil[®]	▪ Particle Size.- 60/100 mesh (150-200µm)	
	▪ Efficiency of clean-up by ratio of stearyl stearate peak area determination	≤ 1 (treated/untreated)
	▪ Recovery of mineral oils	≥ 80%
Na₂SO₄	▪ Purity- 99.99+%	
	▪ Density- 2.68 g/mL	
	▪ mp- 884°C	

Care and Use:

Florisil[®] is a hygroscopic adsorbent that may lose activity (extraction efficiency) with increased exposure to air. Florisil[®] adsorbents should be stored in a dessicator or dry environment.

If activity loss occurs (as determined by suitability testing), Dual Layer Florisil[®]/Na₂SO₄ SPE Tubes can be reactivated by heating at 140°C for 16 h.

Florisil[®] is a registered Trademark of U.S. Silica Company
Certan[®] is a registered Trademark of LGC Group

Precautions and Disclaimer:

This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

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